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FILE COVERS 1907 - 25 Feb 2009 VOL 150 ISS 9
FILE LAST UPDATED: 24 Feb 2009 (20090224/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

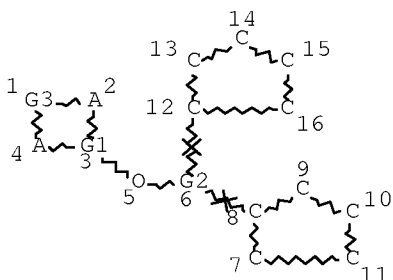
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=> d que l11

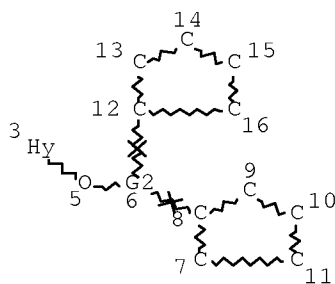
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VAR G2=ZR/TI/HF
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L8 STR



VAR G2=ZR/TI/HF
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 DEFAULT ECLEVEL IS LIMITED

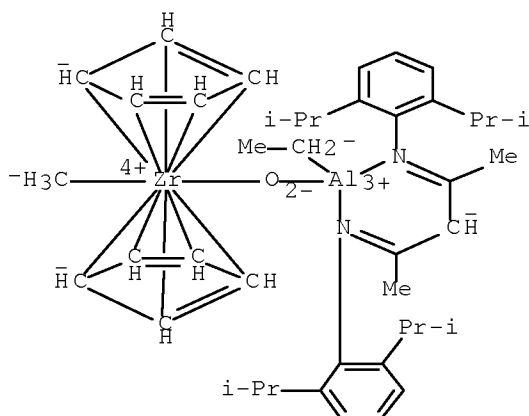
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 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE
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 L11 7 SEA FILE=CAPLUS SPE=ON ABB=ON PLU=ON L10

=> d l11 ibib abs hitstr tot

L11 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:439464 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 149:32351
 TITLE: Synthesis, structural characterization, and
 reactivity of the ethyl substituted aluminum hydroxide and
 catalytic properties of its derivative
 AUTHOR(S): Yang, Ying; Gurubasavaraj, Prabhuodeyara M.;
 Ye, Hongqi; Zhang, Zhensheng; Roesky, Herbert W.;
 Jones, Peter G.
 CORPORATE SOURCE: School of Chemistry and Chemical Engineering,
 Central South University, Changsha, 410083, Peop. Rep.
 China
 SOURCE: Journal of Organometallic Chemistry (2008), 693
 (8-9), 1455-1461
 CODEN: JORCAI; ISSN: 0022-328X
 PUBLISHER: Elsevier Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The Et substituted aluminum hydroxide $\text{LAlEt}(\text{OH})$ (2; $\text{L} = \text{HC}[\text{C}(\text{Me})\text{N}(\text{Ar})]_2$; $\text{Ar} = 2,6\text{-iPr}_2\text{C}_6\text{H}_3$) was prepared by the hydrolysis of $\text{LAlEt}(\text{Cl})$ (1) in the presence of a N-heterocyclic carbene. The reaction of 2 with Cp_2ZrMe_2 in toluene afforded $\text{LAlEt}(\mu\text{-O})\text{ZrMeCp}_2$ (3) by evolution of methane, while the reaction of 2 with Cp_3M in THF led to the intermol. elimination of HCp and formation of $\text{LAlEt}(\mu\text{-O})\text{M}(\text{THF})\text{Cp}_2$ ($\text{M} = \text{Yb}$, 4; Er , 5; Dy , 6; Y , 7). Compds. 2·2THF and 3 were characterized by single X-ray structural anal. Compound 2·2THF crystallizes in the orthorhombic space group $\text{P}2_12_12_1$, while compound 3 crystallizes in space group. In both cases, the displacement of the Al and the $\gamma\text{-C}$ atom out of the NCCN plane is

observed in a boat conformation, but with converse direction.
 Furthermore, compound 3 was used as catalyst for ethylene
 polymerization
 IT 1030631-05-0P
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic
 preparation);
 PREP (Preparation); USES (Uses)
 (crystal structure; preparation of aluminum Et diketiminate oxo-
 bridged
 zirconium cyclopentadienyl complex with catalytic activity for
 ethylene
 polymerization)
 RN 1030631-05-0 CAPLUS
 CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-
 1,3-
 propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]] (1-
)ethylaluminum]methyl- μ -oxo- (CA INDEX NAME)



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE
 FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L11 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2008:93890 CAPLUS Full-text
 DOCUMENT NUMBER: 148:331785
 TITLE: Organoaluminum Hydroxides Supported by
 β -Diketiminato Ligands: Synthesis, Structural
 Characterization, and Reactions
 AUTHOR(S): Yang, Ying; Schulz, Thomas; John, Michael;
 Yang, Zhi;
 Jimenez-Perez, Victor Manuel; Roesky, Herbert
 W.;
 Gurubasavaraj, Prabhuodeyara M.; Stalke,
 Dietmar; Ye,
 Hongqi
 CORPORATE SOURCE: School of Chemistry and Chemical Engineering,
 Central
 South University, Changsha, 410083, Peop. Rep.
 China
 SOURCE: Organometallics (2008), 27(4), 769-777
 CODEN: ORGND7; ISSN: 0276-7333
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English

OTHER SOURCE(S): CASREACT 148:331785

AB Three β -diketiminato ligands ($L1 = HC[C(Me)N(Ar)]_2$, $Ar = 2,4,6-Me_3C_6H_2$; $L2 = HC[C(Me)N(Ar)]_2$, $Ar = 2,6-iPr_2C_6H_3$; $L3 = HC[C(tBu)N(Ar)]_2$, $Ar = 2,6-iPr_2C_6H_3$) were employed to prepare the organoaluminum hydroxides $LAlR(OH)$ ($R = Me, Et, Ph, OEt, OSiMe_3$) by hydrolysis of the corresponding chlorides in the presence of a N-heterocyclic carbene as HCl scavenger. Reaction of the organoaluminum hydroxide with Cp_2ZrMe_2 in toluene afforded the heterobimetallic oxide $LAlR(\mu-O)ZrMeCp_2$ under evolution of methane. All compds. were characterized by multinuclear NMR, IR, mass spectrometry, and elemental anal. The structures of $L1AlPh(OH)$ (10), $L2AlPh(OH)$ (11), $L2AlOEt(OH)$ (12), $L2AlOSiMe_3(OH)$ (13), and $L2AlPh(\mu-O)ZrMeCp_2$ (17) were determined by single-crystal x-ray diffraction studies. The polymerization of ethylene was studied with compound 17, which exhibits moderate catalytic activity.

IT 1010855-42-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(crystal structure; preparation, structural characterization, and reactions

of organoaluminum hydroxides supported by beta-diketiminato ligands)

RN 1010855-42-1 CAPLUS

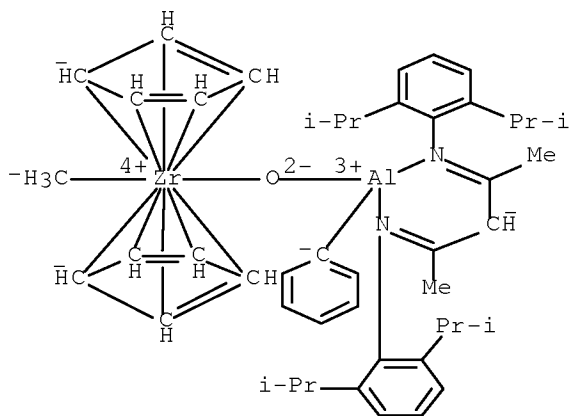
CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[$[N,N'-(1,3$ -dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κN]] (1-)]phenylaluminum]methyl- μ -oxo-, compd. with hexane (2:1) (CA INDEX NAME)

CM 1

CRN 1010855-37-4

CMF C46 H59 Al N2 O Zr

CCI CCS



CM 2

CRN 110-54-3

CMF C6 H14

Me—(CH₂)₄—Me

IT 1010855-37-4P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

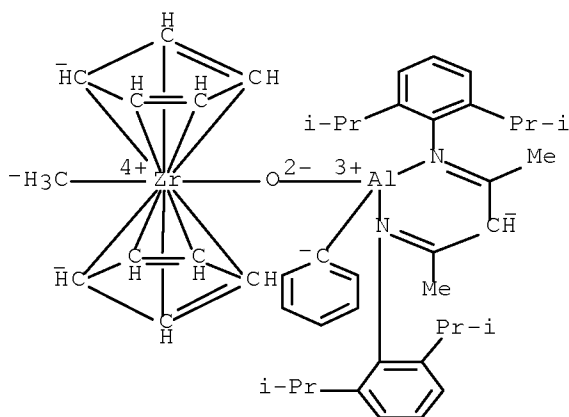
(mol. structure; preparation, structural characterization, and reactions of

organoaluminum hydroxides supported by beta-diketiminato ligands)

RN 1010855-37-4 CAPLUS

CN Zirconium, bis(η⁵-2,4-cyclopentadien-1-yl)[[N,N'-(1,3-dimethyl-1,3-

propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-κN]](1-
)]phenylaluminum)methyl-μ-oxo- (CA INDEX NAME)



IT 1010855-34-1P 1010855-35-2P 1010855-36-3P

1010855-38-5P 1010855-39-6P

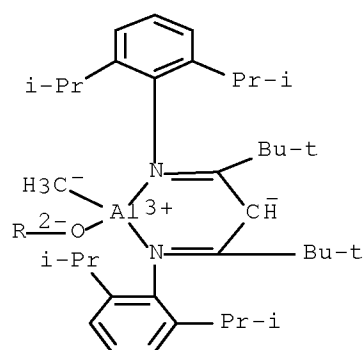
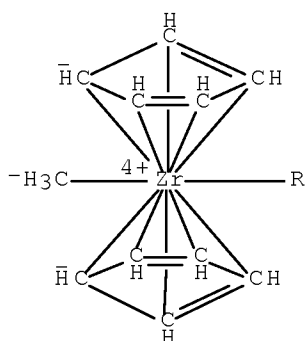
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation, structural characterization, and reactions of
organoaluminum

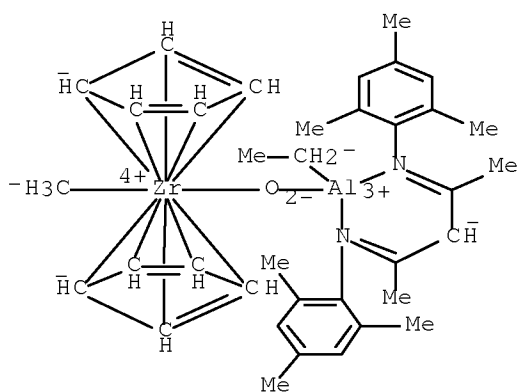
hydroxides supported by beta-diketiminato ligands)

RN 1010855-34-1 CAPLUS

CN Zirconium, [[N,N'-(1,3-bis(1,1-dimethylethyl)-1,3-
propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-κN]](1-
)]methylaluminum]bis(η⁵-2,4-cyclopentadien-1-yl)methyl-μ-oxo- (CA
INDEX NAME)



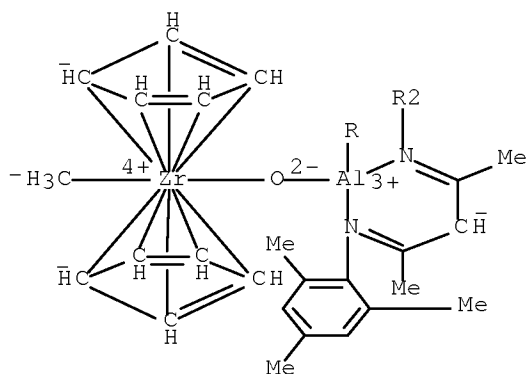
RN 1010855-35-2 CAPLUS
 CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,4,6-trimethylbenzenaminato- κ N]] (1-)]ethylaluminum]methyl- μ -oxo- (CA INDEX NAME)



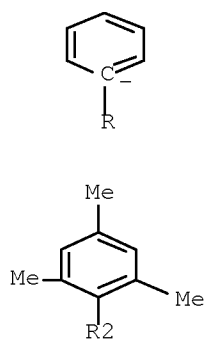
RN 1010855-36-3 CAPLUS

CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,4,6-trimethylbenzenaminato- κ N]] (1-)]phenylaluminum]methyl- μ -oxo- (CA INDEX NAME)

PAGE 1-A

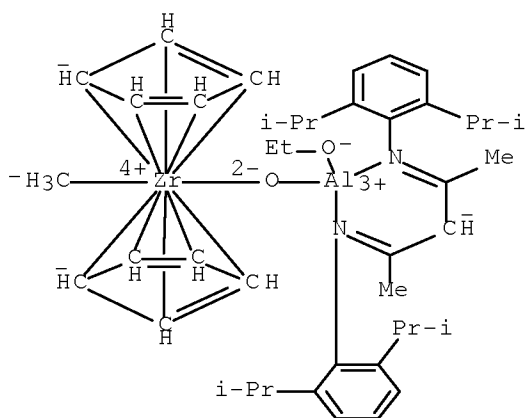


PAGE 2-A

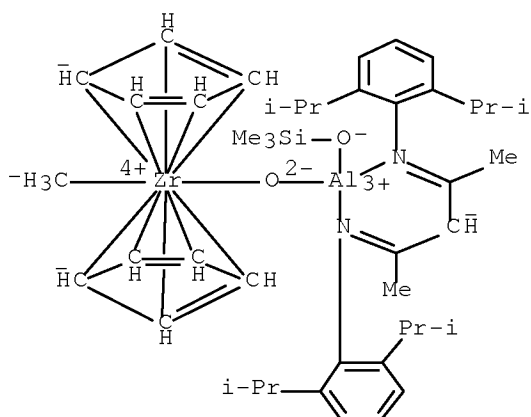


RN 1010855-38-5 CAPLUS

CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]] (1-)]ethoxyaluminum]methyl- μ -oxo- (CA INDEX NAME)



RN 1010855-39-6 CAPLUS
 CN Zirconium, bis(η⁵-2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-κN]] (1-)] (1,1,1-trimethylsilanolato)aluminum]methyl-μ-oxo- (CA INDEX NAME)



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L11 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2007:72698 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 146:337951
 TITLE: Synthesis, Structural Characterization, Catalytic Properties, and Theoretical Study of Compounds Containing an Al-O-M (M = Ti, Hf) Core
 AUTHOR(S): Gurubasavaraj, Prabhuodeyara M.; Mandal, Swadhin K.; Roesky, Herbert W.; Oswald, Rainer B.; Pal, Aritra; Noltemeyer, Mathias
 CORPORATE SOURCE: Institut fuer Anorganische Chemie,

Georg-August-Universitaet Goettingen,
 Goettingen,
 37077, Germany

SOURCE: Inorganic Chemistry (2007), 46(4), 1056-1061
 CODEN: INOCAJ; ISSN: 0020-1669

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

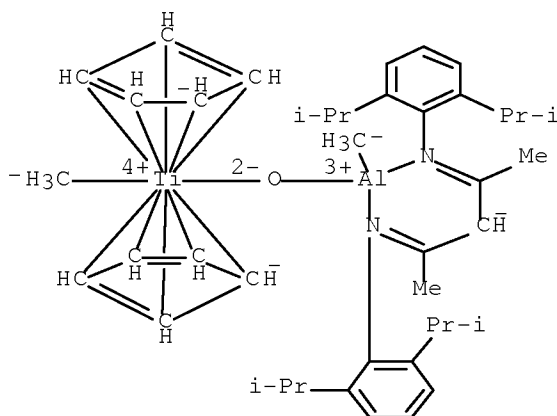
OTHER SOURCE(S): CASREACT 146:337951

AB Two single O-bridged heterobimetallic oxides of Al(III) with Group 4 metals (Ti, Hf) were prepared. The reaction of LAlMeOH (1) ($\text{LH} = \text{ArN:CMech}_2\text{CMe:NAr}$, $\text{Ar} = 2,6\text{-iPr}_2\text{C}_6\text{H}_3$) with dimethylmetallocenes of Ti and Hf in toluene (80°) and ether (room temperature), resp., gave $\text{LAl(Me)(}\mu\text{-O)M(Me)Cp}_2$ [$\text{M} = \text{Ti}$ (2), Hf (3)] in moderate to good yield. Compds. 2 and 3 were characterized by elemental anal., IR, NMR (^1H and ^{13}C), EI-MS, and single-crystal x-ray structural anal. Furthermore, compound 2 showed good catalytic activity in ethylene and styrene homopolymerization, while compound 3 is less active in ethylene polymerization. The styrene polymerization yields atactic polystyrene.

IT 929199-21-3P
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (crystal structure, DFT study; synthesis, structural characterization,
 olefin polymerization catalytic properties, and theor. study of
 aluminum-titanium and hafnium heterodinuclear oxo-bridged
 diiminato
 cyclopentadienyl complexes)

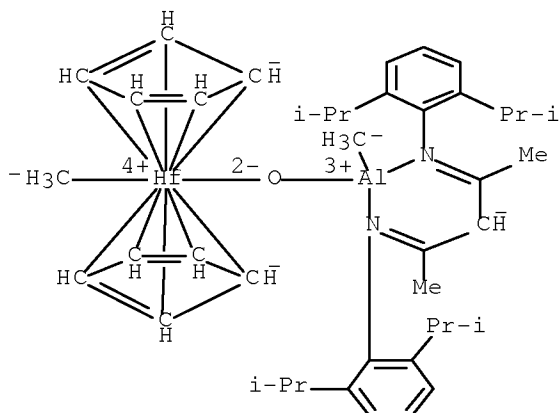
RN 929199-21-3 CAPLUS

CN Titanium, bis($\eta^5\text{-2,4-cyclopentadien-1-yl}$)[[$[\text{N,N'-(1,3-dimethyl-1,3-}$
 propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- $\kappa\text{N}]]$ (1-
)methylaluminum)methyl- μ -oxo- (CA INDEX NAME)



IT 929199-22-4P
 RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);
 PREP (Preparation); USES (Uses)
 (crystal structure; synthesis, structural characterization,
 olefin
 polymerization catalytic properties, and theor. study of
 aluminum-titanium and
 hafnium heterodinuclear oxo-bridged diiminato cyclopentadienyl

complexes)
 RN 929199-22-4 CAPLUS
 CN Hafnium, bis(η^5 -2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]] (1-methylaluminum)methyl- μ -oxo- (CA INDEX NAME)



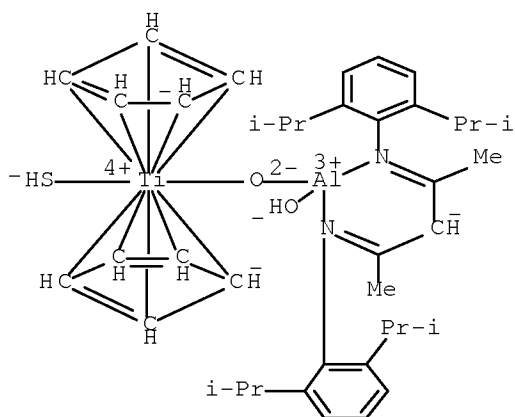
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L11 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:1069169 CAPLUS Full-text
 DOCUMENT NUMBER: 143:478022
 TITLE: Preparation of heterobimetallic oxide-hydroxide-hydrogensulfides [LAl(OH)(μ -O)MCp2(SH)] (M = Ti, Zr)
 AUTHOR(S): Jancik, Vojtech; Roesky, Herbert W.
 CORPORATE SOURCE: Institut fuer Anorganische Chemie der Universitaet, Goettingen, 37077, Germany
 SOURCE: Angewandte Chemie, International Edition (2005), 44(37), 6016-6018

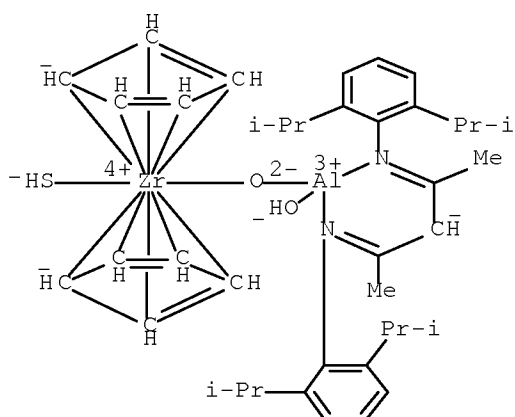
CODEN: ACIEF5; ISSN: 1433-7851
 PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 143:478022
 AB Oxo-bridged N,N'-diaryl diketiminate aluminum-titanocene and aluminum-zirconocene hydroxide-hydrosulfide complexes were prepared by controlled hydrolysis of bis-sulfido-bridged complexes. Hydrolysis of [LAl(μ -S)2MCp2] (LH = MeC(:NAr)CH2C(:NAr)Me, where Ar = 2,6-iPr2C6H3; 1 M = Ti, 2 M = Zr) with two equiv of water gave smoothly the ring opening and chalcogen exchange products, the heterobimetallic oxide-hydroxide-hydrogensulfides [LAl(OH)(μ -O)MCp2(SH)] (3, 4; M = Ti, Zr), identity of which were confirmed by x-ray crystallog. The mechanism of the hydrolysis comprises the intermediacy of [LAl(SH)(μ -O)MCp2(SH)], which liberates H2S upon reaction with water.

IT 869493-72-1P 869493-74-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (crystal structure; preparation of aluminum-titanocene and

aluminum-zirconocene diketiminate oxo-bridged hydroxides and hydrosulfides by hydrolysis of bis-sulfido-bridged complexes)
 RN 869493-72-1 CAPLUS
 CN Titanium, bis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]] (1-)]hydroxyaluminum]mercapto- μ -oxo- (9CI) (CA INDEX NAME)

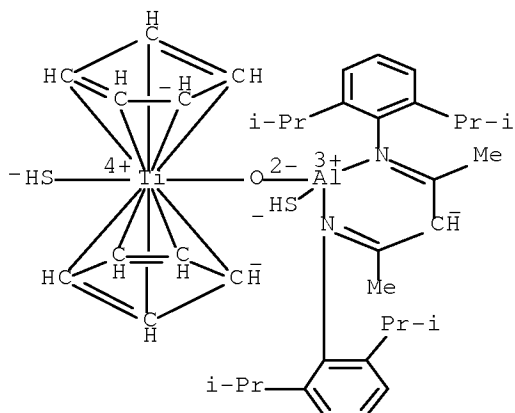


RN 869493-74-3 CAPLUS
 CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]] (1-)]hydroxyaluminum]mercapto- μ -oxo- (9CI) (CA INDEX NAME)

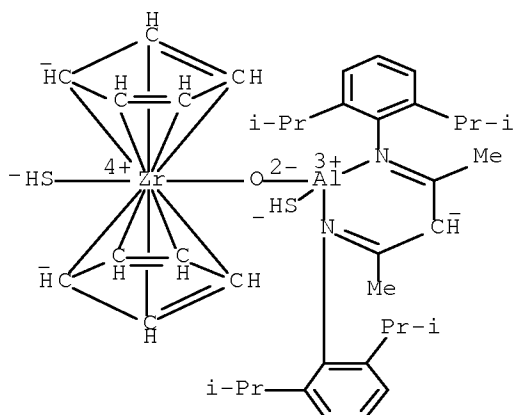


IT 869493-75-4P 869493-76-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of aluminum-titanocene and aluminum-zirconocene diketiminate oxo-bridged hydroxides and hydrosulfides by hydrolysis of bis-sulfido-bridged complexes)

RN 869493-75-4 CAPLUS
 CN Titanium, bis(η⁵-2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-κN]] (1-)]mercaptoaluminum]mercapto-μ-oxo- (9CI) (CA INDEX NAME)



RN 869493-76-5 CAPLUS
 CN Zirconium, bis(η⁵-2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-κN]] (1-)]mercaptoaluminum]mercapto-μ-oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L11 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:1042261 CAPLUS Full-text
 DOCUMENT NUMBER: 143:347601
 TITLE: Oxygen-bridged bimetallic complex, the production thereof and its utilization for polymerization

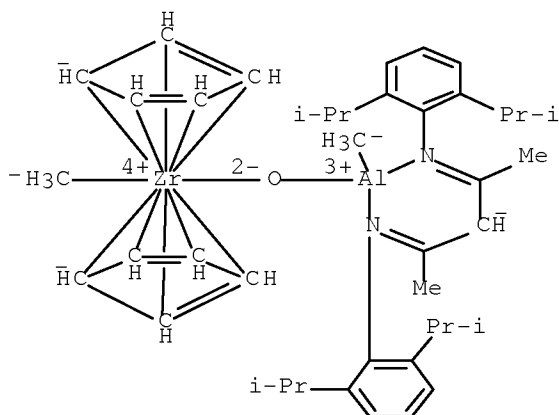
INVENTOR(S): catalysis
Roesky, Herbert; Bai, Guangcai; Jancik,
Vojtech;
PATENT ASSIGNEE(S): Singh, Sanjay
Georg-August-Universitaet Goettingen, Germany
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005090373	A1	20050929	WO 2005-EP2741	
20050315				
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, MR, NE, SN, TD, TG			
EP 1725571	A1	20061129	EP 2005-716071	
20050315				
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US 20080261804	A1	20081023	US 2008-593029	
20080522				
PRIORITY APPLN. INFO.:			EP 2004-6357	A
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20041119			WO 2005-EP2741	W
20050315				

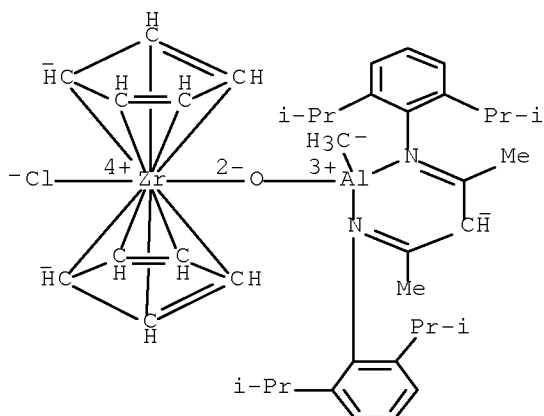
OTHER SOURCE(S): MARPAT 143:347601
AB The binuclear, oxygen-bridged, hetero-bimetallic complexes of general formula [(LM1R1)(Cp2M2R2)](μ-O) (M1 = Al, Ge, Zr or Ti; M2 = Zr, Ti or Hf; Cp = cyclopentadienyl; R1, R2 = Me, Et, iso-Pr, tert-Bu, halogen, Ph, alkylphenyl, SiMe3; L = bidentate, doubly nitrogen-coordinated organochem. ligand, which together with metal M1 form a 5- or 6-membered ring) are suitable as polymerization catalysts for olefin polymerization. These complexes have very good catalytic activity, good useful life and require less amts. of cocatalysts.
IT 849927-38-4P 849927-39-5P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
USES (Uses)
(oxygen-bridged bimetal complexes of metallocenes for catalysts)

for

polymerization of olefins)
RN 849927-38-4 CAPLUS
CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-
1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-
 κ N]]methylaluminum]methyl- μ -oxo- (9CI) (CA INDEX NAME)



RN 849927-39-5 CAPLUS
CN Zirconium, chlorobis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-
dimethyl-
1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato-
 κ N]]methylaluminum]- μ -oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE
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FORMAT

L11 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:309741 CAPLUS Full-text
DOCUMENT NUMBER: 143:26680
TITLE: OH Functionality of Germanium(II) Compounds for
the

AUTHOR(S): Formation of Heterobimetallic Oxides
 Pineda, Leslie W.; Jancik, Vojtech; Roesky,
 Herbert
 W.; Herbst-Irmer, Regine
 CORPORATE SOURCE: Institut fuer Anorganische Chemie,
 Georg-August-Universitaet Goettingen,
 Goettingen,
 37077, Germany
 SOURCE: Inorganic Chemistry (2005), 44(10), 3537-3540
 CODEN: INOCAJ; ISSN: 0020-1669
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 143:26680

AB Two novel Ge(II) μ -oxo heterobimetallic oxides with different oxidation states at the metal centers are reported. The reaction of LGeOH [$\text{L} = \text{N}(\text{Ar})\text{C}(\text{Me})\text{CHC}(\text{Me})\text{N}(\text{Ar})$ ($\text{Ar} = 2,6\text{-i-Pr}_2\text{C}_6\text{H}_3$)] with Cp_2MMe_2 ($\text{M} = \text{Zr}, \text{Hf}$) in Et_2O afforded $\text{LGeOM}(\text{Me})\text{Cp}_2$ [$\text{M} = \text{Zr}$ (2), Hf (3)] in moderate yield. Compds. 2 and 3 were characterized by elemental anal., IR, NMR, EI-MS, and single x-ray structural anal. Compds. 2 and 3 crystallized in the space group P_{21} , and the geometry at the metal centers is tetrahedral. The Ge-O bond lengths of 2 and 3 are very similar (1.797(2) and 1.799(3) Å, resp.), and a bent M-O-M' angle in 2 (143.8(1)°) and 3 (141.9(2)°) features both oxide systems. Different orientations of the Cp and Me groups of the metal centers were observed, and deviations of the Cp groups were exhibited.

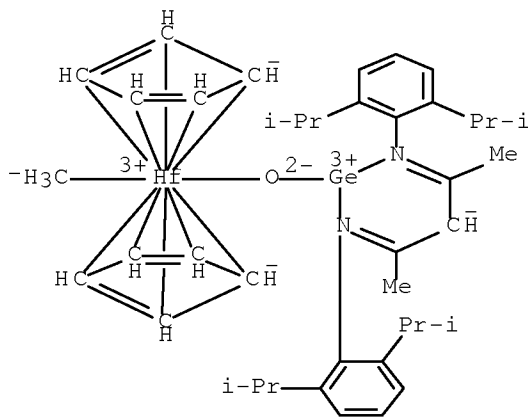
IT 852930-16-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)

(crystal structure; reaction of beta-diketiminatogermanium with methylated hafnocene to give bridging-oxo heterobimetallic oxide system)

RN 852930-16-6 CAPLUS

CN Hafnium, bis(η^5 -2,4-cyclopentadien-1-yl) [[[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κN]] (1-)]germanium]methyl- μ -oxo- (9CI) (CA INDEX NAME)

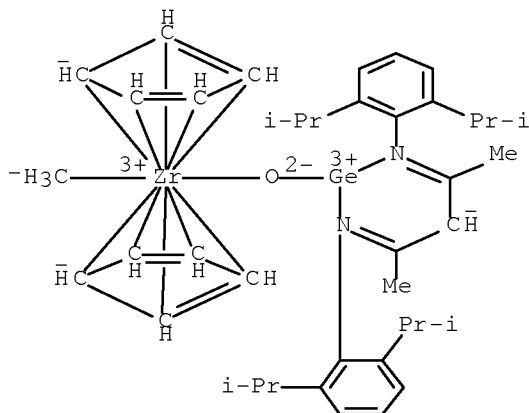


IT 852930-15-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)

(crystal structure; reaction of beta-diketiminatogermanium with methylated zirconocene to give bridging-oxo heterobimetallic oxide)

system)
 RN 852930-15-5 CAPLUS
 CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]] (1-)]germanium]methyl- μ -oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L11 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:139458 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 142:392702
 TITLE: Mononuclear Aluminum Hydroxide for the Design of Well-Defined Homogeneous Catalysts
 AUTHOR(S): Bai, Guangcai; Singh, Sanjay; Roesky, Herbert W.;
 CORPORATE SOURCE: Noltmeyer, Mathias; Schmidt, Hans-Georg
 Institut fuer Anorganische Chemie, Universitaet Goettingen, Goettingen, D-37077, Germany
 SOURCE: Journal of the American Chemical Society (2005), 127(10), 3449-3455
 CODEN: JACSAT; ISSN: 0002-7863
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 142:392702
 AB An unprecedented aluminum hydroxide $\text{LAlMe}(\text{OH})$ (5; $\text{L} = \text{HC}[(\text{CMe})(2,6\text{-iPr}_2\text{C}_6\text{H}_3\text{N})]_2$) has been prepared by the hydrolysis of LAlMeCl (4). For the preparation of 5, the reagents of KOH, water, and KH, as well as the two-phase ammonia/toluene system, were used. Further reactions of 5 with Cp_2ZrMe_2 (8) and Cp_2ZrHCl in toluene lead to the intermol. elimination of CH_4 and H_2 and the formation of μ -O-bridged dinuclear aluminum and zirconium complexes $[\text{LAlMe}(\mu\text{-O})\text{ZrMeCp}_2]$ (6) and $[\text{LAlMe}(\mu\text{-O})\text{ZrClCp}_2]$ (7), resp., in high yields. The crystal structure reveals that 5 is a monomer with terminal OH and Me groups. The X-ray structure anal. shows that 6 and 7 contain a bent Al-(μ -O)-Zr core with terminal Al-Me and Zr-Me or Zr-Cl arrangements. The methylalumoxane (MAO)-activated compds. 6 and 7 exhibit high catalytic activity for the

polymerization of ethylene. Under comparable polymerization conditions, the MAO/6 and MAO/7 catalyst systems show considerably higher activity and much lower MAO:catalyst ratios than that of MAO/8.

IT 849927-38-4P 849927-39-5P

RL: CAT (Catalyst use); PRP (Properties); SPN (Synthetic preparation);

PREP (Preparation); USES (Uses)

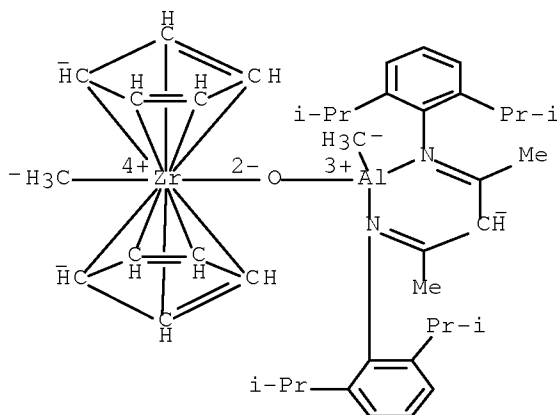
(crystal structure; mononuclear aluminum hydroxide for the design of

well-defined homogeneous heterobimetallic catalysts)

RN 849927-38-4 CAPLUS

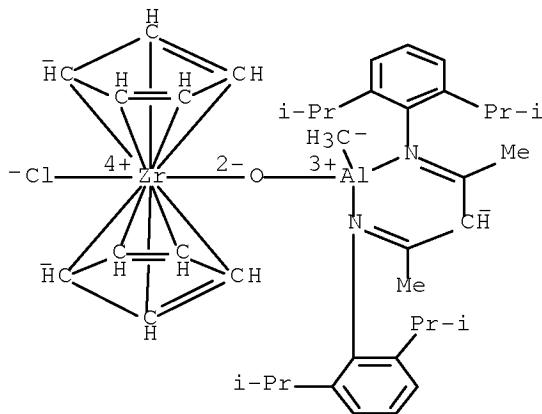
CN Zirconium, bis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-1,3-

propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]]methylaluminum]methyl- μ -oxo- (9CI) (CA INDEX NAME)



RN 849927-39-5 CAPLUS

CN Zirconium, chlorobis(η^5 -2,4-cyclopentadien-1-yl) [[N,N'-(1,3-dimethyl-1,3-propanediylidene)bis[2,6-bis(1-methylethyl)benzenaminato- κ N]]methylaluminum]- μ -oxo- (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 18:10:05 ON 25 FEB 2009)

FILE 'CAPLUS' ENTERED AT 18:10:12 ON 25 FEB 2009

E US2008-593029/APPS

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SEL RN

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5/BI

OR 37342-97-5/BI OR 7440-32-6/BI OR 7440-56-4/BI OR

7440-58-6/B

I OR 794534-83-1/BI OR 844867-43-2/BI OR 849927-38-4/BI

OR

849927-39-5/BI OR 9002-88-4/BI OR 917-65-7/BI)

L3 STR

L4 0 SEA SSS SAM L3

L5 0 SEA SSS FUL L3

D QUE

L6 STR

L7 11 SEA SSS SAM L6

L8 STR L6

L9 1 SEA SSS SAM L6 AND L8

D SCA

L10 18 SEA SSS FUL L6 AND L8

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L11 7 SEA SPE=ON ABB=ON PLU=ON L10

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L12 0 SEA SSS SAM L6 AND L8

L13 0 SEA SSS FUL L6 AND L8

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